HEATED HUMIDITY - AIRVO™	**CS-04-03-12**	Page 1 of 6
Related terms:	**Date Established:** September 2011	**Dates Revised:**
Authorized by: Clinical Directors	**Date For Review:** September 2013	

RATIONALE

To provide guidelines for the administration of heated humidity via Airvo™ for tracheostomy and respiratory clients.

APPLICABILITY

RN, LPN in consultation with RN, RRT.

DEFINITIONS

Airvo™: A humidifier with adjustable flow settings, that aims to deliver 37^{o}C, fully saturated (100% humidity) respiratory gases.

Circuit: Heated breathing tube.

Interface: A tubing that connects to the heated breathing tube on one end and to the client on the other end. The two types are nasal cannula and tracheostomy direct connection.

POLICY

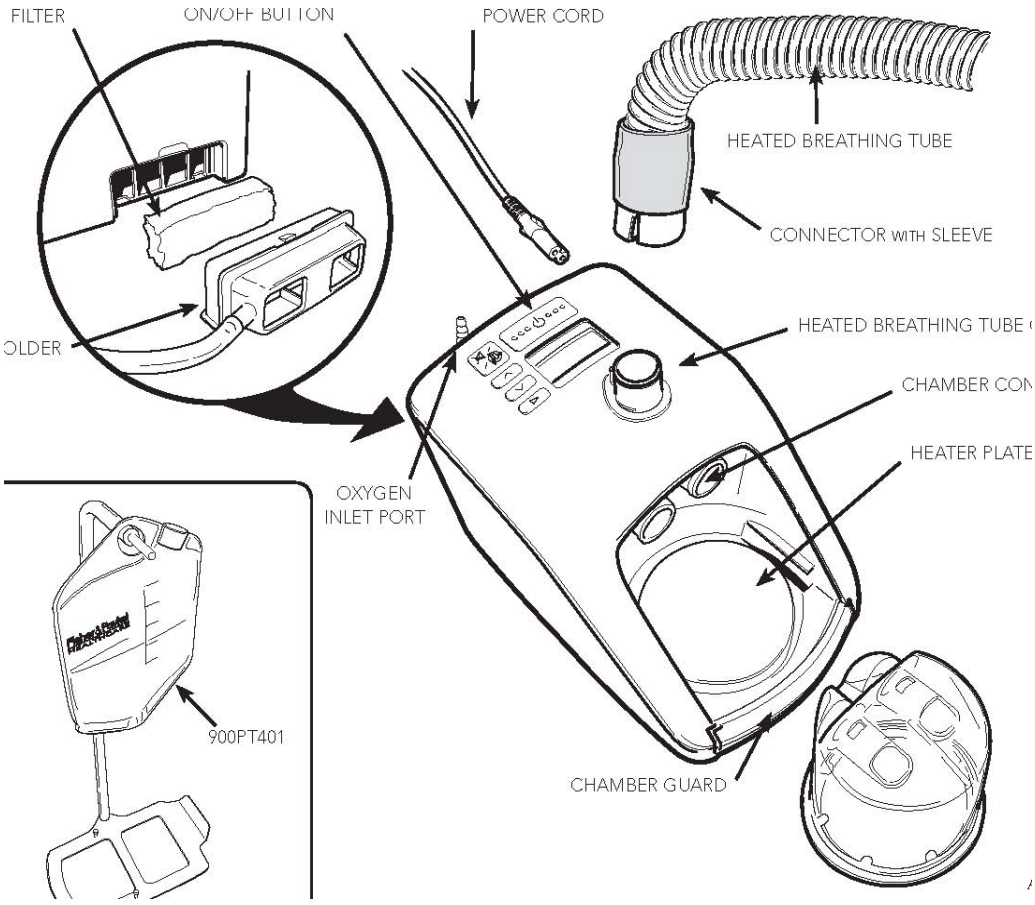
1. Humidity therapy is part of standard therapy for clients with tracheostomies and does not require a physician's order.

2. A physician's order is required to start, discontinue, or change the flow rate of oxygen. All policies and procedures apply to oxygen when oxygen is used with Airvo™. Refer to CS-04-03-01.

PROCEDURE

Basic Set-up:

1. Gather equipment:
   - Airvo™ unit on stand
   - Circuit which includes tubing, autofill chamber
   - 1L sterile water for inhalation only
   - Client interface (tracheostomy direct connect, or nasal prongs)
   - O2 tubing if required.
   - O2 cylinder if required



2. Plug unit into wall electrical outlet.

3. Remove the water chamber from the packaging.

4. Remove the blue port caps from the chamber by pulling the tab upwards. Attach elbow adapter to autofill chamber. Turn chamber upside down and listen to hear float movement (soft click which tells you the float is working). If this sound is not heard, you may have a faulty float in the chamber – replace chamber. Push and slide auto-fill chamber onto heater plate.

5. Hang bag of sterile water (for inhalation use) and push the bag spike into the bag of sterile water. The chamber will now automatically fill to the required level and maintain that level until the water bag is empty. This is indicated by a fill line on the chamber. If the water level rises above the fill line, replace the chamber immediately. If the chamber runs out of water, the "water out" alarm sounds within 30 minutes.

6. Routinely monitor and replace the sterile water bag as needed so that the auto-fill chamber does not run dry. This frequency will vary depending on the set flow rate.

7. To install the circuit: one end of the heated breathing tube has a blue plastic connector. Lift the sleeve and slide the connector onto the unit. Push the sleeve down to lock in place. Connect the other end of the heated breathing tube to the interface.

8. Choose appropriate interface for your client's use and attach to circuit – you should hear a click when properly attached.

9. Turn on the unit by pressing the on/off button. It will take about 3-5 minutes to warm up. When ready for use, a checkmark symbol is displayed on the screen and an audible alert tone is heard. It is **not** recommended to attach therapy until the unit is warmed up.

10. Initial setting for airflow on the unit should be 30 Litres per minute. This setting can be adjusted by pressing the up and down arrows, according to the client's respiratory needs in consultation with the RN or RRT.

11. Attach circuit to client. Use lanyard around client's neck to support the weight of the circuit.

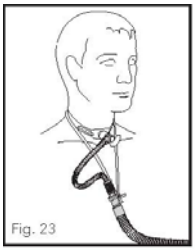


Fig. 23

12. (OPTIONAL) Entrain oxygen onto oxygen inlet as desired flow (see chart on side of unit to calculate flow required).

13. Assess client's respiratory status and vitals. Ensure client is comfortable with heated humidity therapy.

14. Chart Airvo™ flow settings, oxygen if used and interface in use.

Daily Maintenance:

1. When the client is not using the unit, turn off by pressing and holding the on/off button until the unit beeps (about 3 seconds). The unit will automatically enter the drying mode. If the interface requires cleaning, clean it with distilled or sterile water and place it back on the circuit – this will allow the interface to be dried along with the circuit.

   (NOTE – If client does not come off the unit during the day – drying mode is not required).

2. Client can be placed back on the unit at any time, and this can be done by pressing the on/off button, wait for the unit to warm up and then attach interface to client.

3. Check and monitor sterile water bag supplies in room and replace as necessary. The unit will consume approximately 2L per day.

Weekly Maintenance:

Super drying mode – The purpose of this mode is to heat and dry the heated breathing tube and interface, to kill pathogens that may be present.

1. Take client off of the unit and place on appropriate oxygen/humidity therapy. Turn off the unit.

2. Remove autofill chamber and place temporarily in a clean environment – DO NOT THROW AWAY AS IT WILL BE RE-USED. Do not wear the interface during Super Drying Mode. The air is hot and dry and may cause injury.

   Warning: **heating plate can get very hot – do not touch!!!**

3. Insert HC360 chamber which is client-specific and should be labeled with client's full name. Do not add water to this chamber.

4. Turn on the unit by pressing and holding down the button until the unit starts beeping (3 seconds). The display (Drying Mode) is now shown.

5. Now press the alarm silence button for 3 seconds. The unit will automatically enter Super Drying Mode. The –H20 symbol is a prompt to remind you that the HC360 chamber must be empty of water for proper drying to occur. If the chamber is not already empty then empty it before proceeding with Super Drying Mode. This –H20 prompt remains on for about 2 minutes.

6. The Super Dry Mode cycle then starts automatically and runs for 99 minutes. The unit will automatically turn off when it is finished. During Super Drying Mode the Disinfection and Drying Mode symbols and the time remaining are displayed.

7. Remove the HC360 chamber from the unit. The labeled HC360 chamber is not disposable and is to be re-used for each weekly maintenance cycle. Put this chamber into a clean bag and store in client's room until next weekly maintenance.

8. Replace with the original auto-fill chamber.

9. The unit is now ready for another week of use. Refer to basic set-up instruction to apply interface to client.

Schedule for Changing Accessories

Max Period of Use	Part Description
1 Month	Client Interface
2 Month	Circuit and autofill chamber
3 Month	Air Filter

CROSS REFERENCES

Oxygen Therapy CS-04-03-01

REFERENCES

Fisher & Paykel Healthcare. *MyAirvo Series – Home Use Operating Manual* 185045489 RevA.